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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,185	12/08/2000	Donald L. Schilling	GBTI94US	6859

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EXAMINER

NGUYEN, STEVEN H D

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/732,185

Applicant(s)

SCHILLING, DONALD L.

Examiner

Steven HD Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

*Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16, 20-22, 25-27, 31-33, 36-38, 42-43 and 46-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling (USP 5166951) in view of Koyanagi (USP 5291486).

Regarding claims 16, 20-22, 25-27, 31-33, 36-38, 42-43 and 46-50, Schilling discloses a communication system which a packet transmitter including a demultiplexer (Fig 2, Ref 99) for demultiplexing the encoded data into a plurality of sub data sequence (Fig 5, Ref 405), spreading-spectrum means for spread-spectrum processing each of the sub data sequence signals by respective chip sequence signal, thereby generating a plurality of spread-spectrum channels, with a respective chip sequence signal different from a each chip sequence signal in a plurality of chip sequence signals for spread-spectrum processing the plurality of sub data sequence signals, respectively, and with the plurality of chip sequence signals commonly used by the plurality of packet transmitters (Fig 5, Ref 407-408); combiner means for algebraically combining the plurality of spread spectrum channels as a multichannel spread spectrum signal (Fig 2, Ref 105), transmitter means for transmitting at a carrier frequency the packet-spread-spectrum signal using radio waves over a communications channel (Col 19, lines 12-16) and memory means for storing the data is well known in the art. However, Schilling fails to disclose a header means. In the

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same field of endeavor, Koyanagi teaches the use of header device for adding header for a plurality of data signal (Fig 1, Ref 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of header device to add a packet header into a multiplexing data as taught by Koyanagi into the packet multiplexing system of Schilling in order to add the controlling information into the packet to provide a timing and controlling data to receiver, thereby, enhancing the system with higher efficiency.

3. Claims 17-19, 23-24, 28-30, 34-35, 39-41 and 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schilling '951 and as applied to claims 16, 27 and 38 above, and further in view of Schilling (USP 5260967) and Kim (USP 5619526).

Regarding claims 17-19, 28-30 and 39-41, However, Schilling '951 fails to fully disclose the claimed invention. However, the examiner takes official notice that encoder means for encoding, scrambling or encrypting is well known and expected in the art as disclosed by Schilling '967 which used an encrypt for encrypting the encoded information before transmitting (Fig 1, Ref 52) and Kim which used a scrambler for scrambling the encoded information before transmitting (Fig 1, Ref 103 and 101).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply an encoder having the function as encryption, scramble as disclosed by Kim and Schilling '967 into Schilling's transmitter in order to provide security for transmitting data.

Regarding claims 23-24, 34-35 and 44-45, However, Schilling '951 fails to fully disclose the claimed invention. However, the examiner takes official notice that a header, which

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concatenates to the channels is well known and expected in the art as disclosed by Koyanagi in figured 2 wherein a packet header added into a plurality of channels, each channel contains a data packet and Schilling '967 discloses a plurality of spread spectrum channels is concatenated with a header field as sync information (Fig 8 and 10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a header device for generating a preamble to the channels as disclosed by Schilling '967 into Koyanagi and Schilling's transmitter in order to allow the receiver and transmitter to use the information in the header to obtain the information in the channels.

#### ***Response to Arguments***

4. Applicant's arguments filed 3/5/2002 have been fully considered but they are not persuasive.

In response to applicant's argument of page 5-6 that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Schilling discloses a transmitter for transmitting a plurality of spread spectrum channel via an air medium. Koyanagi disclosed a header-adding unit for adding a header into plurality of channels for transmitting via a wire medium. Therefore, it would have

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been obvious to one skill in the art to recognize a step of adding a header into a plurality of channels of the wireless system because the wireless medium and wire medium are only used to convey the information between source and destination. So the motivation would have been to provide a timing and controlling data to receiver, thereby, enhancing the system with higher efficiency.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to page 7, the applicant requires the examiner to provide the prior arts for the claims 17-19, 23-24, 28-30, 34-35, 39-41 and 44-45, which the examiner takes official notice. In reply, the examiner provides Schilling discloses a method of concatenating a plurality of spread spectrum channels with a preamble (Fig 8 and 10) and use an encrypt device for encrypting the information to provide an encoded data. Kim discloses a scrambler for scrambling the information (Fir 1, Ref 103 and 101).

The teaching of Schilling, Kim and Koyanagi disclose the claimed invention. Therefore, the rejection maintained.

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*Conclusion*

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

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5/16/02

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